New Century Composite Squadron
NCR-KS-123
1 NEW CENTURY PKWY ROOM 128
NEW CENTURY AIR CENTER, KS 66031

Aerospace Education

Volume 1, Issue 1 **October 2009**

New Century Composite Squadron Aerospace Education Officer Appointed

Aerospace Education Officer Biography

Captain Vicki Davis

Captain Vicki Davis was appointed as the Squadron's Aerospace Education Officer for the Senior Members. Captain Davis has 35 years teaching experience teaching College Now Physics 1 Honors, Physics 2 Advanced Placement, and Principles of Organic and Biochemistry at Shawnee Mission West High School. She served for 28 years as an adjunct professor for Johnson County Community College (JCCC) in chemistry and microbiology. She previously served as an adjunct for Colby County Community College and Ft. Scott Community College teaching chemistry, microbiology, and human development. She currently serves on the College Now Board at JCCC.

She is a member of the National Science Teacher's Association, the American Association of Physics

*See **Capt Davis** on page 2*

Inside This Issue

Commander's Corner

Lt Col Dominick Italiano

I am pleased the Squadron's Aerospace Education has goal oriented Aerospace Education Officers who will execute CAP's chartered responsibility in Aerospace Education. This newsletter is one of the action oriented goals to provide aviation education and training to the senior and cadet members. In this first issue, I would like to discuss the "Yeager Award", and our responsibility to achieve this prestigious award.

Charles E. "Chuck" Yeager Award

CAP's Aerospace Education (AE) programs implement the AE mission's goals and objectives. One of the objectives for Senior Members is earning the Yeager Award.

Figure 1, Charles E. "Chuck" Yeager

According to CAPR 280-2, "All senior members have the responsibility to read and become knowledgeable with the contents of…*Aerospace: The Journey of Flight."*

After reading and the member is ready to take the Yeager test, there are three options: open book; closed book; or on-line. Members are encouraged to take the test on-line because the results are immediate and the member's eServices records are electronically updated. The

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Capt Davis *from page 1*

Teachers, and the Kansas National Education Association - Shawnee Mission Education Association.

Captain Davis co-sponsors the Viking Robotics Team which aligns with the physics curriculum for the past 5 years competing in the For Inspiration and Recognition of Science and Technology Robotics competition (*FIRST Robotics)*. *FIRST* Robotics is an innovative and creative learning and development program designed to discover and explore all types of science, math, and technology on their own terms and in an energetic environment. Captain Davis takes her knowledge and curriculum into the community to local elementary and middle schools. She is also participating in the grant writing process to obtain funding to promote science, technology, and engineering through robotics in the rural schools of Kansas and Missouri.

Captain Davis graduated from the Kansas State Teacher's College, now called Emporia State University, majoring in biology and chemistry. She holds a Master's degree in Education from Washburn University, and has the equivalence of a Master's degree in physics and gifted education from the University of Kansas.

She is married to Scott Davis, and enjoys her spare time with their six grandchildren. Together, they enjoy camping, canoeing, and other outdoor activities. ❖

AE Plan of Action

The Squadron is required to plan and implement an aerospace education (AE) program which benefits both the senior membership and the cadet program. The **Plan of Action** (POA) is the Squadron Commander and Aerospace Education Officer(s) tool for implementing AE. The plan is forwarded to the Wing Aerospace Education Officer for inclusion into the Wing program. When approved by the Wing Commander, the Squadron's POA, the Squadron members become accountable for implementing the program.

Each POA requires a goal to accomplish, a measurement for participation, when the goal will be achieved (annually, quarterly or monthly), and the previous year's data which is the benchmark for evaluation.

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graduation certificate can be printed immediately for your records.

If completing the test prior to earning the Benjamin O. Davis Award, your certificate will have an attached special Yeager embossed seal. Additionally, any member who passes the test is authorized to wear the Yeager Award Ribbon.

Figure 2, Yeager Award Ribbon

2009/2010 Goal

The Squadron's Yeager Award percentage is 42%, and these numbers should be higher with the caliber of Senior Members in the squadron. The Squadron's goal is to have everybody start reading *Aerospace: The Journey of Flight.* The book can be purchased from Vanguard's web site or you can log into **eServices** and using the left side of your menu, use the **Aerospace Download** (should be in your "My Favorites" or in "Other" if you haven't made it one of your favorites. Use **the 2nd Edition** link for studying.

NCR-KS-123 AEPSM Statistics

	Seniors	AEPSMs	Achieved	Goal	Goal %
	57	**24**	**42%**	**33**	**58%**
Lt Col	11	8	73%	**3**	**27%**
Maj	8	6	75%	**2**	**25%**
Capt	12	5	42%	**7**	**58%**
1st Lt	8	3	38%	**5**	**63%**
2d Lt	8	1	13%	**7**	**88%**
SM	10	1	10%	**9**	**90%**

Figure 3, Analysis of AEPSM

The Squadron's AEOs, as part of their monthly Aerospace Education responsibilities and 2010 goal will be providing AEPSM training the third Tuesday of each month.

2009 Yeager Award Recipient

First Lieutenant A.W. Pickel completed the requirements for the Yeager Award and received his award on June 4, 2009. ❖

***AE POA** from page 2*

Aerospace Education

"Aerospace Education is defined as that branch of general education concerned with communicating knowledge, skills, and attitudes about aerospace activities and the total impact of air and space vehicles upon society." *CAPP 15, Overview*

Calendar of Events

Squadron Aerospace Education for Seniors (Every third Tuesday of the Month)

Place: New Century

Time: 8 PM to 9 PM

Aerospace: The Journey of Flight presentation of the AEPSM program.

Squadron Aerospace Education for Cadets (Every First Tuesday of the Month)

Place: National Guard Armory - Olathe

Time: 7 PM to 9 PM

North Central Region Conference

Place: Holiday Inn-Northwest, Des Moines, Iowa

Date: October 31, 2009, 8 AM – All day

$30 includes dinner buffet

To Register: http://www.ncrpao.org/ncr_conf/index.htm

National Events

Columbus Day – Oct 12

World Space Week – Oct. 4 – 10

Earth Science Week - Oct. 11-17

Red Ribbon Week – Oct. 17 – 25

Astronomy Week - Oct. 19-25

O-Rides/Fly-A-Teacher Schedule

Cadets will be notified when flight times are scheduled.

NCCS Newsletter

Squadron Commander	**Lt Col Dominick Italiano**
Aerospace Education Officers	**Capt Vicki Davis (Seniors)** **2nd Lt Michael Maynard (Cadets)**
Editor	**2nd Lt Michael Maynard** **mmaynard01@gmail.com**

The POA requires input from the other staff officers including the cadet leadership for development. There are standard annual participation goals for reporting and they are:

- The **AE Program for Senior Members** (AEPSM) for senior members to achieve the Yeager Award.
- **Aerospace Education Officer and Commander** to advance the AEO at least one track level.
- **Squadron AE Activity Report** is submitted on time to the Wing.
- **Squadron AEX Award Program** participation and completing six monthly AEX activities.
- **Aerospace Education Members (AEM)s** recruitment of teachers to promote aerospace education in the classroom.
- **School AEX Award Program** is implemented in a new school and to maintain previous year's participation.
- **Wing Conference** attendance by the Squadron AEOs.
- Attend the yearly **National Conference of Aviation and Space Education (NCASE)** conference.
- Submit to Wing, **AE Award** nominations for the Brewer, Crown Circle Awards.
- Submit **AE Bulletins** to the Wing AEO for inclusion on the AE web page and AEO Newsletter.
- Maintain a Squadron **AE Bulletin Board** to post current events, and other official CAP, NCASE, etc., information.
- Publish a squadron level **AE Newsletter**.

As you can see, there is more to CAP's Aerospace Education Program than just standing up in front of a meeting trying to "wing it." All senior members have an important role in aerospace education from working with cadets with their AE, Fly-A-Teacher, Orientation Rides or completing their own education by earning AEPSM. ❖

Aerospace Education

What is Aerospace Education? It is what we do.

Aerospace Education is every member's basic CAP educational requirement; this is why it is one of the three CAP missions. It is what we do, because without the achievements shown in our aviation's history, and the country's forward looking we would not be flying the planes we have today and the aircraft of the future.

Aerospace Education: The Program

Aerospace Education Program for Senior members (AEPSM)

Senior program establish for senior members to earn the Charles E. "Chuck" Yeager Award to have the required knowledge to work with member and outreach programs.

Aerospace Connections is Education (ACE) Program For Grades K – 6

- The Aerospace Connections in Education (ACE) Program is CAP's elementary "school enrichment program" that provides teachers with grade-specific, cross-curricular, aerospace-themed lessons that are correlated to national academic standards.
- The goal of the ACE Program is to foster an appreciation of and interest in the field of aerospace among young students. Ultimately, this program serves to lay a foundation to produce good citizens and the future aerospace workforce.
- ACE's aerospace-themed lessons provide teachers with a motivational tool to fulfill science, technology, engineering and math (STEM) initiatives, as well as to motivate student interest and excellence in other subjects.
- The K-6 ACE Program is intended to be a feeder program to the Cadet Program for grades 6-12.

Aerospace Education Excellence

Participants receive full-color books that feature national standards-based aerospace hands-on activities. The requirements are simple: complete six aerospace activities and one two-hour or longer field experience (space day, trip to the airport or museum, etc.) to earn a beautiful wooden teacher plaque plus color certificates for your students. The activities are designed to fit into any curriculum. Schools' state-approved curriculum may replace or supplement the AEX activities created for this program.

- 5 modules (two K-5, two 6-12, one for adults).
- Many activities used by different age groups.
- Modules are free.
- Most activities inexpensive.
- Great for an aerospace education night.

Fly a Teacher Program

The CAP Fly-a-Teacher Program provides the unique opportunity for teachers to experience orientation flights in CAP aircraft. Teachers receive these flights during an AE workshop and then share the knowledge and excitement of the flight with their students.

- To connect CAP units with teachers in the community.
- To provide professional experiences, excitement and knowledge for teachers that can be transferred directly to their students. To foster CAP's cadet program and aviation career interest in the classrooms of America.
- To share an appreciation for Civil Air Patrol's missions for America throughout our country.

Model Rocketry

Civil Air Patrol's Model Rocketry program is an achievement program for cadets interested in the science, technology, and flight of model rockets.

Grants and Scholarships

The Air Force Association (AFA) helps provide educational opportunities for America's youth. These opportunities were initiated to help ensure that future generations of Americans:

- Appreciate the important role of aviation and space in America's future.
- Have the technical knowledge necessary to understand aerospace issues.
- Have the educational background required to pursue aerospace careers. ❖

Cadet Aerospace Education

October Group AE Activity

The Cadets Will Present A Two Minute Topic Speech On October 13, 2009. The Speech Will Be From An Article Contained In An Air Force Or Other Aerospace Magazine.

Cadet O-Rides

O-Rides Are Being Scheduled For October. Cadets Will Be Contacted To Coordinate Their Flight. The Cadets Who Signed Up For The O-Rides Are: Preston Anderson, Jessica Lile, Claire Roarty, And Jason Pickrell.

2010 AE Planning

Cadet Senior Members And The Cadet Leadership Will Begin Planning Next Year's Events .

Air Museums in Kansas

- Amelia Earhart Birthplace Museum, Atchison
- CAF Heart of America Wing WWII Aviation Flying Museum, New Century (project)
- Coffeyville Aviation Heritage Museum, Coffeyville
- Combat Air Museum, Topeka
- Kansas Aviation Museum, Wichita
- Kansas Cosmosphere & Space Center, Hutchinson
- Mid-America Air Museum, Liberal
- Old Olathe Naval Air Museum, New Century

Space Observatories in Kansas

- Clyde W. Tombaugh Observatory, Lawrence
- Crane Observatory, Topeka
- Farpoint Observatory, Eskridge
- Kansas Wesleyan University Observatory, Salina
- Lake Afton Public Observatory, Wichita
- Northwest Kansas Astronomical Society Deep Sky Eye Observatory, Goodland
- Powell Observatory, Louisburg
- PSU-Greenbush Astrophysical Observatory, Girard

Witnessing Aerospace History: Did you Watch?

2nd Lt. Michael Maynard

On Oct. 9, 2009, two U.S. spacecrafts were intentionally crashed into the moon's surface in an attempt to find water in the lunar soil.

NASA's Lunar Crater Observation and Sensing Satellite (LCROSS) dropped its Centaur upper-stage rocket on the lunar surface at 7:31 a.m. ET.

The impact kicked up a large enough plume to help the LCROSS probe find the presence of water in the moon's soil. Four minutes later, the LCROSS followed through the debris plume, collecting and relaying data back to Earth before crashing into the Cabeus crater near the moon's South Pole.

The LCROSS was carrying spectrometers, near-infrared cameras, a visible camera and a visible radiometer. The ill fated instruments will help NASA scientists analyze the plume of dust – more than 250 metric tons' worth – for water vapor.

Kansas observatories hosted groups to view the event first-hand through telescopes as the impacts happened.

NASA's latest triumph will determine if water exists to sustain human life by extracting water for a 21st century manned moon station. The results of the LCROSS testing will determine what technology will be required to extract and process water molecules from the surface. Will new opportunities arise for you to become lunar water drillers, or will you become involved in the fabrication of the lunar station components to send up in the Orion capsules, or be one of America's future mission astronauts?

We are fortunate witnesses of new space exploration history as technology in space unfolds. Cadets, you have a opportunity to take this new opportunity to a greater reality. ❖